

# Statement of Basis of the Federal Operating Permit

Luminant Generation Company LLC

Site Name: Sandow Steam Electric Station

Physical Location: From I-35 in Round Rock, drive east on US Hwy 79 approximately 35 miles. Take FM 1766 south approximately 5 miles to plant entrance.

Nearest City: Rockdale

County: Milam

Permit Number: 054

Project Type: Renewal

Standard Industrial Classification (SIC) Code: 4911

SIC Name: Electric Services

This Statement of Basis sets forth the legal and factual basis for the draft permit conditions in accordance with 30 TAC §122.201(a)(4). Per 30 TAC §§ 122.241 and 243, the permit holder has submitted an application under § 122.134 for permit renewal. This document may include the following information:

- A description of the facility/area process description;
- A basis for applying permit shields;
- A list of the federal regulatory applicability determinations;
- A table listing the determination of applicable requirements;
- A list of the New Source Review Requirements;
- The rationale for periodic monitoring methods selected;
- The rationale for compliance assurance methods selected;
- A compliance status; and
- A list of available unit attribute forms.

Prepared on: March 15, 2017

## Operating Permit Basis of Determination

### Permit Area Process Description

The utility electric boiler provides steam to a turbine/generator set which is capable of generating approximately 545 MW (net). The unit fires lignite supplied by a local mine. No. 2 fuel oil is used only as a start-up/stabilization fuel and is introduced into the boiler by ignitors, not the main burners. There are also two start-up boilers fueled by No. 2 fuel oil that provide start-up.

The lignite is transported to the site by conveyors or truck where it is unloaded and reclaimed through underground hoppers. Then it is processed by a fuel handling system before being introduced into the primary burners. Flue gas from the Unit 4 boiler is routed through a selective catalytic reduction (SCR) system, which reduces emissions of oxides of nitrogen (NO<sub>x</sub>). After flue gas exits the SCR, a sorbent injection system can inject a mercury sorbent (e.g., activated carbon, treated or untreated) to reduce emissions of mercury (Hg). An electrostatic precipitator (ESP) removes most of the particulate matter from the flue gas. From the ESP, most of the Unit 4 flue gas is routed through a wet flue gas desulfurization (FGD) system to reduce emissions of sulfur dioxide (SO<sub>2</sub>). Flue gas exiting the FGD is exhausted through the Unit 4 stack. Limestone used in the FGD is delivered via railcar or truck and is processed to make a reagent feed slurry. Afterward the sludge from the FGD system is piped off-site for disposal. The ash collected by the ESP is conveyed off-site to storage silos for disposal or sales.

### FOPs at Site

The “application area” consists of the emission units and that portion of the site included in the application and this permit. Multiple FOPs may be issued to a site in accordance with 30 TAC § 122.201(e). When there is only one area for the site, then the application information and permit will include all units at the site. Additional FOPs that exist at the site, if any, are listed below.

Additional FOPs: None

### Major Source Pollutants

The table below specifies the pollutants for which the site is a major source:

Major Pollutants	VOC, SO <sub>2</sub> , PM <sub>10</sub> , NO <sub>x</sub> , HAPs, CO, Total PM
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### Reading State of Texas’s Federal Operating Permit

The Title V Federal Operating Permit (FOP) lists all state and federal air emission regulations and New Source Review (NSR) authorizations (collectively known as “applicable requirements”) that apply at a particular site or permit area (in the event a site has multiple FOPs). **The FOP does not authorize new emissions or new construction activities.** The FOP begins with an introductory page which is common to all Title V permits. This page gives the details of the company, states the authority of the issuing agency, requires the company to operate in accordance with this permit and 30 Texas Administrative Code (TAC) Chapter 122, requires adherence with NSR requirements of 30 TAC Chapter 116, and finally indicates the permit number and the issuance date.

This is followed by the table of contents, which is generally composed of the following elements. Not all permits will have all of the elements.

- General Terms and Conditions
- Special Terms and Conditions
  - Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting
  - Additional Monitoring Requirements
  - New Source Review Authorization Requirements

- Compliance Requirements
- Protection of Stratosphere Ozone
- Permit Location
- Permit Shield (30 TAC § 122.148)
- Attachments
  - Applicable Requirements Summary
    - Unit Summary
    - Applicable Requirements Summary
  - Additional Monitoring Requirements
  - Permit Shield
  - New Source Review Authorization References
  - Compliance Plan
  - Alternative Requirements
- Appendix A
  - Acronym list
- Appendix B
  - Copies of major NSR authorizations

## General Terms and Conditions

The General Terms and Conditions are the same and appear in all permits. The first paragraph lists the specific citations for 30 TAC Chapter 122 requirements that apply to all Title V permit holders. The second paragraph describes the requirements for record retention. The third paragraph provides details for voiding the permit, if applicable. The fourth paragraph states that the permit holder shall comply with the requirements of 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit. The fifth paragraph provides details on submission of reports required by the permit.

## Special Terms and Conditions

Emissions Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting. The TCEQ has designated certain applicable requirements as site-wide requirements. A site-wide requirement is a requirement that applies uniformly to all the units or activities at the site. Units with only site-wide requirements are addressed on Form OP-REQ1 and are not required to be listed separately on a OP-UA Form or Form OP-SUM. Form OP-SUM must list all units addressed in the application and provide identifying information, applicable OP-UA Forms, and preconstruction authorizations. The various OP-UA Forms provide the characteristics of each unit from which applicable requirements are established. Some exceptions exist as a few units may have both site-wide requirements and unit specific requirements.

Other conditions. The other entries under special terms and conditions are in general terms referring to compliance with the more detailed data listed in the attachments.

## Attachments

Applicable Requirements Summary. The first attachment, the Applicable Requirements Summary, has two tables, addressing unit specific requirements. The first table, the Unit Summary, includes a list of units with applicable requirements, the unit type, the applicable regulation, and the requirement driver. The intent of the requirement driver is to inform the reader that a given unit may have several different operating scenarios and the differences between those operating scenarios.

The applicable requirements summary table provides the detailed citations of the rules that apply to the various units. For each unit and operating scenario, there is an added modifier called the “index number,” detailed citations specifying monitoring and testing requirements, recordkeeping requirements, and reporting requirements. The data for this table are based on data supplied by the applicant on the OP-SUM and various OP-UA forms.

**Additional Monitoring Requirement.** The next attachment includes additional monitoring the applicant must perform to ensure compliance with the applicable standard. Compliance assurance monitoring (CAM) is often required to provide a reasonable assurance of compliance with applicable emission limitations/standards for large emission units that use control devices to achieve compliance with applicant requirements. When necessary, periodic monitoring (PM) requirements are specified for certain parameters (i.e. feed rates, flow rates, temperature, fuel type and consumption, etc.) to determine if a term and condition or emission unit is operating within specified limits to control emissions. These additional monitoring approaches may be required for two reasons. First, the applicable rules do not adequately specify monitoring requirements (exception- Maximum Achievable Control Technology Standards (MACTs) generally have sufficient monitoring), and second, monitoring may be required to fill gaps in the monitoring requirements of certain applicable requirements. In situations where the NSR permit is the applicable requirement requiring extra monitoring for a specific emission unit, the preferred solution is to have the monitoring requirements in the NSR permit updated so that all NSR requirements are consolidated in the NSR permit.

**Permit Shield.** A permit may or may not have a permit shield, depending on whether an applicant has applied for, and justified the granting of, a permit shield. A permit shield is a special condition included in the permit document stating that compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirement(s) or specified applicable state-only requirement(s).

**New Source Review Authorization References.** All activities which are related to emissions in the state of Texas must have a NSR authorization prior to beginning construction. This section lists all units in the permit and the NSR authorization that allowed the unit to be constructed or modified. Units that do not have unit specific applicable requirements other than the NSR authorization do not need to be listed in this attachment. While NSR permits are not physically a part of the Title V permit, they are legally incorporated into the Title V permit by reference. Those NSR permits whose emissions exceed certain PSD/NA thresholds must also undergo a Federal review of federally regulated pollutants in addition to review for state regulated pollutants.

**Compliance Plan.** A permit may have a compliance schedule attachment for listing corrective actions plans for any emission unit that is out of compliance with an applicable requirement.

**Alternative Requirements.** This attachment will list any alternative monitoring plans or alternative means of compliance for applicable requirements that have been approved by the EPA Administrator and/or the TCEQ Executive Director.

## Appendix A

**Acronym list.** This attachment lists the common acronyms used when discussing the FOPs.

## Appendix B

Copies of major NSR authorizations applicable to the units covered by this permit have been included in this Appendix, to ensure that all interested persons can access those authorizations.

## **Stationary vents subject to 30 TAC Chapter 111, Subchapter A, § 111.111(a)(1)(B) addressed in the Special Terms and Conditions**

The site contains stationary vents with a flowrate less than 100,000 actual cubic feet per minute (acfm) and constructed after January 31, 1972 which are limited, over a six-minute average, to 20% opacity as required by 30 TAC § 111.111(a)(1)(B). As a site may have a large number of stationary vents that fall into this category, they are not required to be listed individually in the permit's Applicable Requirement Summary. This is consistent with EPA's White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995, that states that requirements that apply identically to emission units at a site can be treated on a generic basis such as source-wide opacity limits.

Periodic monitoring is specified in Special Term and Condition 3.A.(iv) for stationary vents subject to 30 TAC § 111.111(a)(1)(B) to verify compliance with the 20% opacity limit. These vents are not expected to produce visible emissions during normal operation. The TCEQ evaluated the probability of these sources violating the

opacity standards and determined that there is a very low potential that an opacity standard would be exceeded. It was determined that continuous monitoring for these sources is not warranted as there would be very limited environmental benefit in continuously monitoring sources that have a low potential to produce visible emissions. Therefore, the TCEQ set the visible observation monitoring frequency for these sources to once per calendar quarter.

The TCEQ has exempted vents that are not capable of producing visible emissions from periodic monitoring requirements. These vents include sources of colorless VOCs, non-fuming liquids, and other materials that cannot produce emissions that obstruct the transmission of light. Passive ventilation vents, such as plumbing vents, are also included in this category. Since this category of vents are not capable of producing opacity due to the physical or chemical characteristics of the emission source, periodic monitoring is not required as it would not yield any additional data to assure compliance with the 20% opacity standard of 30 TAC § 111.111(a)(1)(B).

In the event that visible emissions are detected, either through the quarterly observation or other credible evidence, such as observations from company personnel, the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 TAC § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours. This will address possible emissions that may arise when switching fuel types.

#### **Stationary Vents subject to 30 TAC Chapter 111 not addressed in the Special Terms and Conditions**

All other stationary vents subject to 30 TAC Chapter 111 not covered in the Special Terms and Conditions are listed in the permit's Applicable Requirement Summary. The basis for the applicability determinations for these vents are listed in the Determination of Applicable Requirements table.

#### **Federal Regulatory Applicability Determinations**

The following chart summarizes the applicability of the principal air pollution regulatory programs to the permit area:

<b>Regulatory Program</b>	<b>Applicability (Yes/No)</b>
Prevention of Significant Deterioration (PSD)	Yes
Nonattainment New Source Review (NNSR)	No
Minor NSR	Yes
40 CFR Part 60 - New Source Performance Standards	Yes
40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAPs)	No
40 CFR Part 63 - NESHAPs for Source Categories	Yes
Title IV (Acid Rain) of the Clean Air Act (CAA)	Yes
Title V (Federal Operating Permits) of the CAA	Yes
Title VI (Stratospheric Ozone Protection) of the CAA	Yes
CSAPR (Cross-State Air Pollution Rule)	Yes

## **Acid Rain Permit**

The permitted area is subject to Federal Clean Air Act Title IV Acid Rain rules for Phase II units, as codified in 40 CFR Parts 72 through 78, because it meets the definition of “affected source.” Applicability of affected sources are defined in 40 CFR § 72.6 and include those sources that burn fossil fuel, and generates electricity for sale. Under 40 CFR Part 72, incorporated by reference into 30 TAC Chapter 122, all acid rain permits must contain specific terms and conditions, including monitoring, reporting, recordkeeping and excess emission requirements, established by the U.S. EPA. The Title IV permitting procedures are described within 30 TAC Chapter 122, Subchapter E. The applicable requirements of the Acid Rain Permit are contained in the Special Terms and Conditions of the FOP. The Acid Rain permit is effective as of the date of the issuance of the FOP and has a term ending in concurrence with the FOP.

## **Cross-State Air Pollution Rule**

The Cross-State Air Pollution Rule (CSAPR) was established to mitigate the interstate transport of NO<sub>x</sub> and SO<sub>2</sub> which contribute to the formation of fine particles (PM 2.5) and ground-level ozone and has replaced the previous Clean Air Interstate Rule (CAIR) program. The EPA has promulgated a model cap and trade program in 40 CFR Part 97 to implement CSAPR. This rule has been adopted by reference into 30 TAC Chapter 122 as part of an effective rulemaking (Rule Project No. 2016-012-122-AI), which included the repeal of 30 TAC Chapter 122, Subchapter E, Division 2: Clean Air Interstate Rule.

The permitted area is subject to CSAPR as it contains units that meet a definition of a CSAPR unit in 40 CFR Part 97 (CSAPR NO<sub>x</sub> and SO<sub>2</sub> Trading Programs). The applicable CSAPR requirements are contained in the Special Terms and Conditions of the FOP.

## **Insignificant Activities**

In general, units not meeting the criteria for inclusion on either Form OP-SUM or Form OP-REQ1 are not required to be addressed in the operating permit application. Examples of these types of units include, but are not limited to, the following:

1. Office activities such as photocopying, blueprint copying, and photographic processes.
2. Sanitary sewage collection and treatment facilities other than those used to incinerate wastewater treatment plant sludge. Stacks or vents for sanitary sewer plumbing traps are also included.
3. Food preparation facilities including, but not limited to, restaurants and cafeterias used for preparing food or beverages primarily for consumption on the premises.
4. Outdoor barbecue pits, campfires, and fireplaces.
5. Laundry dryers, extractors, and tumblers processing bedding, clothing, or other fabric items generated primarily at the premises. This does not include emissions from dry cleaning systems using perchloroethylene or petroleum solvents.
6. Facilities storing only dry, sweet natural gas, including natural gas pressure regulator vents.
7. Any air separation or other industrial gas production, storage, or packaging facility. Industrial gases, for purposes of this list, include only oxygen, nitrogen, helium, neon, argon, krypton, and xenon.
8. Storage and handling of sealed portable containers, cylinders, or sealed drums.
9. Vehicle exhaust from maintenance or repair shops.
10. Storage and use of non-VOC products or equipment for maintaining motor vehicles operated at the site (including but not limited to, antifreeze and fuel additives).
11. Air contaminant detectors and recorders, combustion controllers and shut-off devices, product analyzers, laboratory analyzers, continuous emissions monitors, other analyzers and monitors, and emissions associated with sampling activities. Exception to this category includes sampling activities that are deemed fugitive emissions and under a regulatory leak detection and repair program.
12. Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including but not limited to, assorted vacuum producing devices and laboratory fume hoods.

13. Steam vents, steam leaks, and steam safety relief valves, provided the steam (or boiler feedwater) has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
14. Storage of water that has not contacted other materials or fluids containing regulated air pollutants other than boiler water treatment chemicals.
15. Well cellars.
16. Fire or emergency response equipment and training, including but not limited to, use of fire control equipment including equipment testing and training, and open burning of materials or fuels associated with firefighting training.
17. Crucible or pot furnaces with a brim full capacity of less than 450 cubic inches of any molten metal.
18. Equipment used exclusively for the melting or application of wax.
19. All closed tumblers used for the cleaning or deburring of metal products without abrasive blasting, and all open tumblers with a batch capacity of 1,000 lbs. or less.
20. Shell core and shell mold manufacturing machines.
21. Sand or investment molds with a capacity of 100 lbs. or less used for the casting of metals;
22. Equipment used for inspection of metal products.
23. Equipment used exclusively for rolling, forging, pressing, drawing, spinning, or extruding either hot or cold metals by some mechanical means.
24. Instrument systems utilizing air, natural gas, nitrogen, oxygen, carbon dioxide, helium, neon, argon, krypton, and xenon.
25. Battery recharging areas.
26. Brazing, soldering, or welding equipment.

### **Determination of Applicable Requirements**

The tables below include the applicability determinations for the emission units, the index number(s) where applicable, and all relevant unit attribute information used to form the basis of the applicability determination. The unit attribute information is a description of the physical properties of an emission unit which is used to determine the requirements to which the permit holder must comply. For more information about the descriptions of the unit attributes specific Unit Attribute Forms may be viewed at [www.tceq.texas.gov/permitting/air/nav/air\\_all\\_ua\\_forms.html](http://www.tceq.texas.gov/permitting/air/nav/air_all_ua_forms.html).

A list of unit attribute forms is included at the end of this document. Some examples of unit attributes include construction date; product stored in a tank; boiler fuel type; etc.. Generally, multiple attributes are needed to determine the requirements for a given emission unit and index number. The table below lists these attributes in the column entitled "Basis of Determination." Attributes that demonstrate that an applicable requirement applies will be the factual basis for the specific citations in an applicable requirement that apply to a unit for that index number. The TCEQ Air Permits Division has developed flowcharts for determining applicability of state and federal regulations based on the unit attribute information in a Decision Support System (DSS). These flowcharts can be accessed via the internet at [www.tceq.texas.gov/permitting/air/nav/air\\_supportsys.html](http://www.tceq.texas.gov/permitting/air/nav/air_supportsys.html). The Air Permits Division staff may also be contacted for assistance at (512) 239-1250.

The attributes for each unit and corresponding index number provide the basis for determining the specific legal citations in an applicable requirement that apply, including emission limitations or standards, monitoring, recordkeeping, and reporting. The rules were found to apply or not apply by using the unit attributes as answers to decision questions found in the flowcharts of the DSS. Some additional attributes indicate which legal citations of a rule apply. The legal citations that apply to each emission unit may be found in the Applicable Requirements Summary table of the draft permit. There may be some entries or rows of units and rules not found in the permit, or if the permit contains a permit shield, repeated in the permit shield area. These are sets of attributes that describe negative applicability, or; in other words, the reason why a potentially applicable requirement does not apply.

If applicability determinations have been made which differ from the available flowcharts, an explanation of the decisions involved in the applicability determination is specified in the column "Changes and Exceptions to RRT." If there were no exceptions to the DSS, then this column has been removed.

The draft permit includes all emission limitations or standards, monitoring, recordkeeping and reporting required by each applicable requirement. If an applicable requirement does not require monitoring, recordkeeping, or reporting, the word “None” will appear in the Applicable Requirements Summary table. If additional periodic monitoring is required for an applicable requirement, it will be explained in detail in the portion of this document entitled “Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected.”

When attributes demonstrate that a unit is not subject to an applicable requirement, the applicant may request a permit shield for those items. The portion of this document entitled “Basis for Applying Permit Shields” specifies which units, if any, have a permit shield.

#### Operational Flexibility

When an emission unit has multiple operating scenarios, it will have a different index number associated with each operating condition. This means that units are permitted to operate under multiple operating conditions. The applicable requirements for each operating condition are determined by a unique set of unit attributes. For example, a tank may store two different products at different points in time. The tank may, therefore, need to comply with two distinct sets of requirements, depending on the product that is stored. Both sets of requirements are included in the permit, so that the permit holder may store either product in the tank.



### Determination of Applicable Requirements

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
S4EDG	40 CFR Part 60, Subpart IIII	60IIII	Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification on or before July 11, 2005.	
S4EDG	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	<p>HAP Source = Any stationary source or group of stationary sources of hazardous air pollutants meeting the definition of a major source as described in 40 CFR § 63.2.</p> <p>Brake HP = Stationary RICE with a brake HP greater than 500 HP.</p> <p>Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002.</p> <p>Service Type = Emergency use where the RICE does not operate or is not contractually obligated to be available for more than 15 hours per calendar year as specified in 40 CFR §63.6640(f)(2)(ii)-(iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii).</p>	
S4FD	40 CFR Part 60, Subpart IIII	60IIII	Applicability Date = Stationary CI ICE commenced construction, reconstruction, or modification on or before July 11, 2005.	
S4FD	40 CFR Part 63, Subpart ZZZZ	63ZZZZ	<p>HAP Source = Any stationary source or group of stationary sources of hazardous air pollutants meeting the definition of a major source as described in 40 CFR § 63.2.</p> <p>Brake HP = Stationary RICE with a brake HP greater than or equal to 300 HP and less than or equal to 500 HP.</p> <p>Construction/Reconstruction Date = Commenced construction or reconstruction before December 19, 2002.</p> <p>Service Type = Emergency use where the RICE does not operate or is not contractually obligated to be available for more than 15 hours per calendar year as specified in 40 CFR §63.6640(f)(2)(ii)-(iii) or does not operate as specified in 40 CFR §63.6640(f)(4)(ii).</p> <p>Stationary RICE Type = Compression ignition engine</p>	<p>The following changes are included in the permit to remove §63.6640(b) since the unit does not use a catalyst, and to exclude vacated citations §63.6640(f)(2)(ii) and § 63.6640(f)(2)(iii):</p> <p>-- Affected Pollutant - 112(B) HAPS:</p> <p>Added Related Standard § 63.6640(f)(2)</p> <p>Added Related Standard § 63.6640(f)(2)(i)</p> <p>Deleted Related Standard § 63.6640(b)</p> <p>Deleted Related Standard [G]§ 63.6640(f)(2)</p>
DBATNK	40 CFR Part 60, Subpart Kb	60Kb	<p>Product Stored = Volatile organic liquid</p> <p>Storage Capacity = Capacity is greater than or equal to 10,600 gallons (40,000 liters) but less than 19,800 gallons (75,000 liters)</p>	
LOMT	40 CFR Part 60, Subpart K	60K	<p>Construction/Modification Date = After March 8, 1974 and on or before May 19, 1978</p> <p>Storage Capacity = Capacity is 40,000 gallons (151,416 liters) or less</p>	
SA-DSCT	40 CFR Part 60, Subpart Ka	60Da	Product Stored = Stored product other than a petroleum liquid	
SA-FOST	40 CFR Part 60, Subpart Ka	60Da	Product Stored = Stored product other than a petroleum liquid	
SA-TLOR4	40 CFR Part 60, Subpart K	60K	<p>Construction/Modification Date = After March 8, 1974 and on or before May 19, 1978</p> <p>Storage Capacity = Capacity is 40,000 gallons (151,416 liters) or less</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
SA-REFUEL	30 TAC Chapter 115, Loading and Unloading of VOC	R5211	Chapter 115 Facility Type = Motor vehicle fuel dispensing facility	
SA-VOCXFER	30 TAC Chapter 115, Loading and Unloading of VOC	R5211	Chapter 115 Facility Type = Facility type other than a gasoline terminal, gasoline bulk plant, motor vehicle fuel dispensing facility or marine terminal. Alternate Control Requirement (ACR) = No alternate control requirements are being utilized. Product Transferred = Volatile organic compounds other than gasoline. Transfer Type = Loading and unloading.	
GRPAUX	30 TAC Chapter 112, Sulfur Compounds	R112-2	Fuel Type = Liquid fuel. Heat Input = Design heat input is less than or equal to 250 MMBtu/hr. Stack Height = The effective stack height is at least the standard effective stack height for each stack to which the unit routes emissions.	
GRPAUX	40 CFR Part 60, Subpart D	60D-1	Construction/Modification Date = After December 22, 1976, and on or before September 18, 1978. Covered Under Subpart Da = The steam generating unit is not covered under 40 CFR Part 60, Subpart Da. Changes to Existing Affected Facility = No change has been made to the existing fossil fuel-fired steam generating unit. Heat Input Rate = Heat input rate is less than or equal to 250 MMBtu/hr (73 MW).	
GRPAUX	40 CFR Part 63, Subpart DDDDD	63DDDDD-1	Construction/Reconstruction Date = Construction or reconstruction began on or before June 4, 2010.	
S4MB	30 TAC Chapter 111, Nonagricultural Processes	R1111-1	Source Type = Solid fossil fuel-fired steam generator.	The following change is included in the previous effective permit and has been retained:  -- Affected Pollutant - PM: Added Related Standard § 111.153(a)
S4MB	30 TAC Chapter 112, Sulfur Compounds	R112-1	Fuel Type = Solid fossil fuel. Date of Operation = Began operation on or after January 1, 1955. Heat Input = Design heat input is greater than 1500 MMBtu/hr. Control Equipment = Unit equipped with SO <sub>2</sub> control equipment. FCAA § 412(c) = The unit is subject to the Federal Clean Air Act § 412(c) [FCAA § 412(c)] as amended in 1990.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
S4MB	30 TAC Chapter 117, Subchapter E, Division 1	R117-1	<p>Date Placed in Service = Before December 31, 1995.</p> <p>NO<sub>x</sub> Emission Limitation = Unit is complying with the System Cap under 30 TAC § 117.3020.</p> <p>Unit Exempt = The unit does not qualify for any exemptions under the rule.</p> <p>Location = The unit is not a gas-fired steam generator located in Palo Pinto County as specified in 30 TAC § 117.3005(a).</p> <p>NO<sub>x</sub> Monitoring = A continuous emissions monitoring system is used to monitor NO<sub>x</sub> emissions.</p> <p>Maximum Emission Rate = The owner or operator is using one of the other allowed methods under § 117.3020(e)(1) - (3) to provide substitute emissions compliance when the NO<sub>x</sub> monitor is off-line.</p> <p>Ammonia Use = Ammonia injection is used to control NO<sub>x</sub> emissions.</p> <p>NH3 Emission Limitation = Title 30 TAC § 117.3010(2).</p> <p>Ammonia Monitoring = A continuous emissions monitoring system is used to monitor ammonia emissions.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
S4MB	40 CFR Part 60, Subpart D	60D-1	<p>Construction/Modification Date = After December 22, 1976, and on or before September 18, 1978.</p> <p>D-Series Fuel Type #1 = Lignite.</p> <p>Covered Under Subpart Da = The steam generating unit is not covered under 40 CFR Part 60, Subpart Da.</p> <p>Changes to Existing Affected Facility = No change has been made to the existing fossil fuel-fired steam generating unit.</p> <p>Alternate 43D = No alternative requirement is used for SO<sub>2</sub>, unit is complying with requirements of § 60.43(a) and (b).</p> <p>Heat Input Rate = Heat input rate is greater than 250 MMBtu/hr (73 MW).</p> <p>Alternate 42C = The facility is meeting the requirements of § 60.42(a) for PM.</p> <p>Alternate 44E = The facility is meeting the requirements of § 60.44(a), (b), and (d) for NO<sub>x</sub>.</p> <p>Flue Gas Desulfurization = The unit utilizes a flue gas desulfurization device.</p> <p>PM CEMS = The facility does not use a CEMS to measure PM.</p> <p>Fuel Sampling and Analysis = The unit does not use fuel sampling and analysis for monitoring of sulfur dioxide emissions.</p> <p>Gas or Liquid Fuel Only = Burns gaseous or liquid fossil fuel with potential SO<sub>2</sub> emissions rates greater than 0.060 lb/MMBtu, or other fuels, or uses post combustion technology to reduce of SO<sub>2</sub> or PM, or does not monitor SO<sub>2</sub> emissions by sampling or fuel receipts.</p> <p>Cyclone-Fired Unit = The unit is not a cyclone-fired unit.</p> <p>Fuels with 0.33 Percent or Less Sulfur = Facility uses post combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or CO, burns gaseous fuels or fuel oils that contain more than 0.30 % sulfur by weight or other fuels, or operates so CO emissions are &gt; 0.15 lb/MMBtu average.</p> <p>NO<sub>x</sub> Monitoring Type = It was not demonstrated during the performance test that emissions of NO<sub>x</sub> are less than 70% of applicable standards in 40 CFR § 60.44.</p> <p>PM CEMS Petition = No petition has been granted to install a PM CEMS as an alternative to the CEMS for monitoring opacity emissions.</p>	<p>The following changes are included in the permit to clarify that the test methods in the subparagraphs of § 60.46(d) are alternative test methods (i.e. not required in every case):</p> <p>-- Affected Pollutant - SO<sub>2</sub>: Added Monitoring/Testing § 60.46(d)</p> <p>-- Affected Pollutant - NO<sub>x</sub>: Added Monitoring/Testing § 60.46(d)</p>
S4MB	40 CFR Part 63, Subpart UUUUU	63UUUUU-1	Unit Type = Unit is a coal-fired electric utility steam generating unit as defined in 40 CFR § 63.10042.	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
GRPCHS	40 CFR Part 60, Subpart Y	60Y-1	<p>Coal Preparation Plant = Coal preparation plant contains thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems or coal transfer and loading systems.</p> <p>Design Capacity = Design capacity is greater than 200 tons of coal per day.</p> <p>Federally Enforceable Limit Option = The plant chooses not to operate under a federally enforceable limit of less than 200 tons per day.</p> <p>Affected Facility = Coal processing and conveying equipment (including breakers and crushers), coal storage systems (excluding open storage piles), or coal transfer and loading systems.</p> <p>Construction/Reconstruction/Modification Date = After October 24, 1974 and before April 28, 2008.</p>	<p>The following changes are included in the permit to add citation [G]§ 60.257(a)(2) which specifies test methods for fugitive emission sources:</p> <p>-- Affected Pollutant - PM (OPACITY):</p> <p>Added Monitoring/Testing [G]§ 60.257(a)</p> <p>Deleted Related Standard § 60.257(a)</p> <p>Deleted Monitoring/Testing § 60.257(a)</p> <p>Deleted Monitoring/Testing [G]§ 60.257(a)(1)</p> <p>Deleted Monitoring/Testing [G]§ 60.257(a)(3)</p>
GRPLHS	40 CFR Part 60, Subpart OOO	60000	<p>Plant Type = Crushed stone plant.</p> <p>Portable or Fixed Plant = Fixed.</p> <p>Plant Capacity = Capacity is greater than 25 tons/hr.</p> <p>Underground Mines = The facility is not located in an underground mine.</p> <p>Subpart Applicability = The facility is not subject to 40 CFR Part 60, Subparts F or I, nor does the facility follow, in the plant process, another facility subject to Subparts F or I.</p> <p>Facility Type = Transfer point on a belt conveyor not processing saturated material.</p> <p>Construction/Modification Date = On or before August 31, 1983.</p>	
S01	30 TAC Chapter 111, Visible Emissions	R111-2	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>SIP Violation = The source is able to comply with applicable PM and opacity regulations without the use of PM collection equipment and has not been found to be in violation of any visible emission standard in a State Implementation Plan.</p> <p>Vent Source = The source of the vent is a steam generator that burns oil or a mixture of oil and gas.</p> <p>Opacity Monitoring System = Optical instrument capable of measuring the opacity of emissions is not installed in the vent or optical instrumentation does not meet the requirements of § 111.111(a)(1)(D), or the vent stream does not qualify for the exemption in § 111.111(a)(3).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>	

Unit ID	Regulation	Index Number	Basis of Determination*	Changes and Exceptions to DSS**
S03	30 TAC Chapter 111, Visible Emissions	R111-1	<p>Alternate Opacity Limitation = Not complying with an alternate opacity limit under 30 TAC § 111.113.</p> <p>Annual ACF = Annual average capacity factor is greater than 30%, but was not reportable to the Federal Power Commission for calendar year 1974.</p> <p>Vent Source = The source of the vent is a steam generator fired by solid fossil fuel.</p> <p>Opacity Monitoring System = A continuous emissions monitoring system (CEMS) capable of measuring the opacity of emissions is installed in the vent in accordance with 30 TAC § 111.111(a)(1)(C).</p> <p>Construction Date = After January 31, 1972</p> <p>Effluent Flow Rate = Effluent flow rate is at least 100,000 actual cubic feet per minute.</p>	

\* - The “unit attributes” or operating conditions that determine what requirements apply

\*\* - Notes changes made to the automated results from the DSS, and a brief explanation why

## NSR Versus Title V FOP

The state of Texas has two Air permitting programs, New Source Review (NSR) and Title V Federal Operating Permits. The two programs are substantially different both in intent and permit content.

NSR is a preconstruction permitting program authorized by the Texas Clean Air Act and Title I of the Federal Clean Air Act (FCAA). The processing of these permits is governed by 30 Texas Administrative Code (TAC) Chapter 116.111. The Title V Federal Operating Program is a federal program authorized under Title V of the FCAA that has been delegated to the state of Texas to administer and is governed by 30 TAC Chapter 122. The major differences between the two permitting programs are listed in the table below:

NSR Permit	Federal Operating Permit(FOP)
Issued Prior to new Construction or modification of an existing facility	For initial permit with application shield, can be issued after operation commences; significant revisions require approval prior to operation.
Authorizes air emissions	Codifies existing applicable requirements, does not authorize new emissions
Ensures issued permits are protective of the environment and human health by conducting a health effects review and that requirement for best available control technology (BACT) is implemented.	Applicable requirements listed in permit are used by the inspectors to ensure proper operation of the site as authorized. Ensures that adequate monitoring is in place to allow compliance determination with the FOP.
Up to two Public notices may be required. Opportunity for public comment and contested case hearings for some authorizations.	One public notice required. Opportunity for public comments. No contested case hearings.
Applies to all point source emissions in the state.	Applies to all major sources and some non-major sources identified by the EPA.
Applies to facilities: a portion of site or individual emission sources	One or multiple FOPs cover the entire site (consists of multiple facilities)
Permits include terms and conditions under which the applicant must construct and operate its various equipment and processes on a facility basis.	Permits include terms and conditions that specify the general operational requirements of the site; and also include codification of all applicable requirements for emission units at the site.
Opportunity for EPA review for Federal Prevention of Significant Deterioration (PSD) and Nonattainment (NA) permits for major sources.	Opportunity for EPA review, Affected states review, and a Public petition period for every FOP.
Permits have a table listing maximum emission limits for pollutants	Permit has an applicable requirements table and Periodic Monitoring (PM) / Compliance Assurance Monitoring (CAM) tables which document applicable monitoring requirements.
Permits can be altered or amended upon application by company. Permits must be issued before construction or modification of facilities can begin.	Permits can be revised through several revision processes, which provide for different levels of public notice and opportunity to comment. Changes that would be significant revisions require that a revised permit be issued before those changes can be operated.
NSR permits are issued independent of FOP requirements.	FOP are independent of NSR permits, but contain a list of all NSR permits incorporated by reference

## New Source Review Requirements

Below is a list of the New Source Review (NSR) permits for the permitted area. These NSR permits are incorporated by reference into the operating permit and are enforceable under it. These permits can be found in the main TCEQ file room, located on the first floor of Building E, 12100 Park 35 Circle, Austin, Texas. The Public Education Program may be contacted at 1-800-687-4040 or the Air Permits Division (APD) may be contacted at 1-512-239-1250 for help with any question.

Additionally, the site contains emission units that are permitted by rule under the requirements of 30 TAC Chapter 106, Permits by Rule. The following table specifies the permits by rule that apply to the site. All current permits by rule are contained in Chapter 106. Outdated 30 TAC Chapter 106 permits by rule may be viewed at the following Web site:

[www.tceq.texas.gov/permitting/air/permitbyrule/historical\\_rules/old106list/index106.html](http://www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/old106list/index106.html)

Outdated Standard Exemption lists may be viewed at the following Web site:

[www.tceq.texas.gov/permitting/air/permitbyrule/historical\\_rules/oldselist/se\\_index.html](http://www.tceq.texas.gov/permitting/air/permitbyrule/historical_rules/oldselist/se_index.html)

The status of air permits and applications and a link to the Air Permits Remote Document Server is located at the following Web site:

[www.tceq.texas.gov/permitting/air/nav/air\\_status\\_permits.html](http://www.tceq.texas.gov/permitting/air/nav/air_status_permits.html)

<b>Prevention of Significant Deterioration (PSD) Permits</b>	
PSD Permit No.: PSDTX28M1	Issuance Date: 02/17/2017
<b>Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.</b>	
Authorization No.: 108271	Issuance Date: 03/04/2013
Authorization No.: 125855	Issuance Date: 10/28/2016
Authorization No.: 45425	Issuance Date: 06/22/2012
Authorization No.: 4980	Issuance Date: 02/17/2017
Authorization No.: 5473	Issuance Date: 03/25/2015
Authorization No.: 87633	Issuance Date: 03/19/2009
Authorization No.: 97146	Issuance Date: 07/21/2011
<b>Permits By Rule (30 TAC Chapter 106) for the Application Area</b>	
Number: 106.144	Version No./Date: 09/04/2000
Number: 106.227	Version No./Date: 09/04/2000
Number: 106.261	Version No./Date: 03/14/1997
Number: 106.261	Version No./Date: 11/01/2003
Number: 106.262	Version No./Date: 11/01/2003
Number: 106.263	Version No./Date: 11/01/2001
Number: 106.264	Version No./Date: 09/04/2000
Number: 106.412	Version No./Date: 09/04/2000
Number: 106.433	Version No./Date: 09/04/2000
Number: 106.452	Version No./Date: 03/14/1997
Number: 106.452	Version No./Date: 09/04/2000
Number: 106.454	Version No./Date: 11/01/2001



Number: 106.472	Version No./Date: 09/04/2000
Number: 106.511	Version No./Date: 09/04/2000
Number: 106.532	Version No./Date: 09/04/2000
Number: 5	Version No./Date: 05/12/1981
Number: 58	Version No./Date: 05/05/1976
Number: 58	Version No./Date: 05/12/1981

### **Emission Units and Emission Points**

In air permitting terminology, any source capable of generating emissions (for example, an engine or a sandblasting area) is called an Emission Unit. For purposes of Title V, emission units are specifically listed in the operating permit when they have applicable requirements other than New Source Review (NSR), or when they are listed in the permit shield table.

The actual physical location where the emissions enter the atmosphere (for example, an engine stack or a sand-blasting yard) is called an emission point. For New Source Review preconstruction permitting purposes, every emission unit has an associated emission point. Emission limits are listed in an NSR permit, associated with an emission point. This list of emission points and emission limits per pollutant is commonly referred to as the “Maximum Allowable Emission Rate Table”, or “MAERT” for short. Specifically, the MAERT lists the Emission Point Number (EPN) that identifies the emission point, followed immediately by the Source Name, identifying the emission unit that is the source of those emissions on this table.

Thus, by reference, an emission unit in a Title V operating permit is linked by reference number to an NSR authorization, and its related emission point.

### **Monitoring Sufficiency**

Federal and state rules, 40 CFR § 70.6(a)(3)(i)(B) and 30 TAC § 122.142(c) respectively, require that each federal operating permit include additional monitoring for applicable requirements that lack periodic or instrumental monitoring (which may include recordkeeping that serves as monitoring) that yields reliable data from a relevant time period that are representative of the emission unit’s compliance with the applicable emission limitation or standard. Furthermore, the federal operating permit must include compliance assurance monitoring (CAM) requirements for emission sources that meet the applicability criteria of 40 CFR Part 64 in accordance with 40 CFR § 70.6(a)(3)(i)(A) and 30 TAC § 122.604(b).

With the exception of any emission units listed in the Periodic Monitoring or CAM Summaries in the FOP, the TCEQ Executive Director has determined that the permit contains sufficient monitoring, testing, recordkeeping, and reporting requirements that assure compliance with the applicable requirements. If applicable, each emission unit that requires additional monitoring in the form of periodic monitoring or CAM is described in further detail under the Rationale for CAM/PM Methods Selected section following this paragraph.

### **Rationale for Compliance Assurance Monitoring (CAM)/ Periodic Monitoring Methods Selected**

#### **Compliance Assurance Monitoring (CAM):**

Compliance Assurance Monitoring (CAM) is a federal monitoring program established under Title 40 Code of Federal Regulations Part 64 (40 CFR Part 64).

Emission units are subject to CAM requirements if they meet the following criteria:

1. the emission unit is subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement;
2. the emission unit uses a control device to achieve compliance with the emission limitation or standard specified in the applicable requirement; and
3. the emission unit has the pre-control device potential to emit greater than or equal to the amount in tons per year for a site to be classified as a major source.

The following table(s) identify the emission unit(s) that are subject to CAM:

Unit/Group/Process Information	
ID No.: S4MB	
Control Device ID No.: S4EP	Control Device Type: Wet or Dry Electrostatic Precipitator
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Nonagricultural Processes	SOP Index No.: R1111-1
Pollutant: PM	Main Standard: § 111.153(b)
Monitoring Information	
Indicator: Opacity	
Minimum Frequency: 6 times per minute	
Averaging Period: 2 hour block	
Deviation Limit: Maximum opacity = 20%	
<p>Basis of CAM: The 20% opacity deviation limit is consistent with the 20% opacity limit specified in 40 CFR Part 60, Subpart D. Because the particulate mass emission limit specified in 40 CFR Part 60, Subpart D is more stringent than the mass limit specified in 30 TAC §111.153(b), demonstrating compliance with the 20% opacity limit also demonstrates compliance with the lb/MMBtu limit in 30 TAC § 111.153(b).</p> <p>The option to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in other federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

Unit/Group/Process Information	
ID No.: S4MB	
Control Device ID No.: S4SO2S	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R112-1
Pollutant: SO <sub>2</sub>	Main Standard: § 112.8(a)
Monitoring Information	
Indicator: SO <sub>2</sub> concentration	
Minimum Frequency: Permit holder will collect at least four data values equally spaced over each hour, as required by 40 CFR §64.3(b)(4)(ii).*	
Averaging Period: 3 hours	
Deviation Limit: SO <sub>2</sub> emissions not to exceed 3.0 lb/MMBtu heat input	
Basis of CAM: It is widely practiced and accepted to calibrate and use a portable analyzer or CEMS to measure SO <sub>2</sub> concentration with procedures such as EPA Test Method 6C. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard.	

\*The permit holder may elect to collect data on a more frequent basis provided that the additional data is collected on a regular basis and is not used to avoid reporting deviations in particular instances.

Unit/Group/Process Information	
ID No.: S4MB	
Control Device ID No.: S4EP	Control Device Type: Wet or Dry Electrostatic Precipitator
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart D	SOP Index No.: 60D-1
Pollutant: PM	Main Standard: § 60.42(a)(1)
Monitoring Information	
Indicator: Opacity	
Minimum Frequency: Six times per minute	
Averaging Period: Six minutes	
Deviation Limit: Maximum 20% opacity except for one six-minute period per hour of not more than 27% opacity.	
<p>Basis of CAM: The option to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

Unit/Group/Process Information	
ID No.: S4MB	
Control Device ID No.: S4EP	Control Device Type: Wet or Dry Electrostatic Precipitator
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart D	SOP Index No.: 60D-1
Pollutant: PM (OPACITY)	Main Standard: § 60.42(a)(2)
Monitoring Information	
Indicator: Opacity	
Minimum Frequency: Six times per minute	
Averaging Period: Six minutes	
Deviation Limit: Maximum 20% opacity except for one six-minute period per hour of not more than 27% opacity.	
<p>Basis of CAM: The option to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

Unit/Group/Process Information	
ID No.: S4MB	
Control Device ID No.: S4SO2S	Control Device Type: Wet Scrubber
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart D	SOP Index No.: 60D-1
Pollutant: SO <sub>2</sub>	Main Standard: § 60.43(a)(2)
Monitoring Information	
Indicator: SO <sub>2</sub> concentration	
Minimum Frequency: At least four data values equally spaced over each hour.	
Averaging Period: 3 hours	
Deviation Limit: SO <sub>2</sub> emissions not to exceed 1.2 lb/MMBtu heat input, averaged over a 3-hour period.	
Basis of CAM: It is widely practiced and accepted to calibrate and use a portable analyzer or CEMS to measure SO <sub>2</sub> concentration with procedures such as EPA Test Method 6C. The measured concentration along with stack flow rate or AP-42 factors and fuel consumption records may be used to demonstrate compliance with an underlying emission limit or standard.	

**Periodic Monitoring:**

The Federal Clean Air Act requires that each federal operating permit include monitoring sufficient to assure compliance with the terms and conditions of the permit. Most of the emission limits and standards applicable to emission units at Title V sources include adequate monitoring to show that the units meet the limits and standards. For those requirements that do not include monitoring, or where the monitoring is not sufficient to assure compliance, the federal operating permit must include such monitoring for the emission units affected. The following emission units are subject to periodic monitoring requirements because the emission units are subject to an emission limitation or standard for an air pollutant (or surrogate thereof) in an applicable requirement that does not already require monitoring, or the monitoring for the applicable requirement is not sufficient to assure compliance:

Unit/Group/Process Information	
ID No.: GRPAUX	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 112, Sulfur Compounds	SOP Index No.: R112-2
Pollutant: SO <sub>2</sub>	Main Standard: § 112.9(a)
Monitoring Information	
Indicator: Fuel sulfur content	
Minimum Frequency: Annually	
Averaging Period: n/a	
Deviation Limit: Maximum 0.7% sulfur, by weight	
Basis of monitoring: A common way to determine SO <sub>2</sub> emissions is by determining the amount (percentage) of sulfur in fuel combusted by an emission unit. This quantity along with stack flow rate and quantity of fuel combusted may be used to calculate the amount of SO <sub>2</sub> emitted to the atmosphere.	

Unit/Group/Process Information	
ID No.: GRPCHS	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 40 CFR Part 60, Subpart Y	SOP Index No.: 60Y-1
Pollutant: PM (OPACITY)	Main Standard: § 60.254(a)
Monitoring Information	
Indicator: Opacity	
Minimum Frequency: Once per month	
Averaging Period: Six-minutes	
Deviation Limit: Maximum opacity = 20%	
<p>Basis of monitoring: The option to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	



Unit/Group/Process Information	
ID No.: S01	
Control Device ID No.: N/A	Control Device Type: N/A
Applicable Regulatory Requirement	
Name: 30 TAC Chapter 111, Visible Emissions	SOP Index No.: R111-2
Pollutant: PM (OPACITY)	Main Standard: § 111.111(a)(1)(C)
Monitoring Information	
Indicator: Opacity	
Minimum Frequency: Monthly	
Averaging Period: Six minutes	
Deviation Limit: Opacity > 15% opacity	
<p>Basis of monitoring: The option to perform opacity readings or visible emissions to demonstrate compliance is consistent with EPA Reference Test Method 9 and 22. Opacity and visible emissions have been used as an indicator of particulate emissions in many federal rules including 40 CFR Part 60, Subpart F and Subpart HH. In addition, use of these indicators is consistent with the EPA's "Compliance Assurance Monitoring (CAM) Technical Guidance Document" (August 1998). Monitoring specifications and procedures for the opacity are consistent with federal requirements and include the EPA's Test Method 9 for determining opacity by visual observations and the requirements of 40 CFR § 60.13 for a continuous opacity monitoring system (COMS). The monitoring specifications and procedures for the visible emissions monitoring are similar to "EPA Reference Method 22" procedures.</p>	

## Compliance Review

1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on October 6, 2016.

Site rating: 0.00 / High Company rating: 0.00 / High

(High < 0.10; Satisfactory ≥ 0.10 and ≤ 55; Unsatisfactory > 55)

2. Has the permit changed on the basis of the compliance history or site/company rating? .....No

## Site/Permit Area Compliance Status Review

1. Were there any out-of-compliance units listed on Form OP-ACPS? .....No

2. Is a compliance plan and schedule included in the permit? .....No

## Available Unit Attribute Forms

OP-UA1 - Miscellaneous and Generic Unit Attributes

OP-UA2 - Stationary Reciprocating Internal Combustion Engine Attributes

OP-UA3 - Storage Tank/Vessel Attributes

OP-UA4 - Loading/Unloading Operations Attributes

OP-UA5 - Process Heater/Furnace Attributes

OP-UA6 - Boiler/Steam Generator/Steam Generating Unit Attributes

OP-UA7 - Flare Attributes

OP-UA8 - Coal Preparation Plant Attributes

OP-UA9 - Nonmetallic Mineral Process Plant Attributes

OP-UA10 - Gas Sweetening/Sulfur Recovery Unit Attributes

OP-UA11 - Stationary Turbine Attributes

OP-UA12 - Fugitive Emission Unit Attributes

OP-UA13 - Industrial Process Cooling Tower Attributes

OP-UA14 - Water Separator Attributes

OP-UA15 - Emission Point/Stationary Vent/Distillation Operation/Process Vent Attributes

OP-UA16 - Solvent Degreasing Machine Attributes

OP-UA17 - Distillation Unit Attributes

OP-UA18 - Surface Coating Operations Attributes

OP-UA19 - Wastewater Unit Attributes

OP-UA20 - Asphalt Operations Attributes

OP-UA21 - Grain Elevator Attributes

OP-UA22 - Printing Attributes

OP-UA24 - Wool Fiberglass Insulation Manufacturing Plant Attributes

OP-UA25 - Synthetic Fiber Production Attributes

OP-UA26 - Electroplating and Anodizing Unit Attributes

OP-UA27 - Nitric Acid Manufacturing Attributes

OP-UA28 - Polymer Manufacturing Attributes

OP-UA29 - Glass Manufacturing Unit Attributes

OP-UA30 - Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mill Attributes

OP-UA31 - Lead Smelting Attributes

OP-UA32 - Copper and Zinc Smelting/Brass and Bronze Production Attributes

OP-UA33 - Metallic Mineral Processing Plant Attributes

OP-UA34 - Pharmaceutical Manufacturing

OP-UA35 - Incinerator Attributes

OP-UA36 - Steel Plant Unit Attributes

OP-UA37 - Basic Oxygen Process Furnace Unit Attributes

OP-UA38 - Lead-Acid Battery Manufacturing Plant Attributes

OP-UA39 - Sterilization Source Attributes

OP-UA40 - Ferroalloy Production Facility Attributes

OP-UA41 - Dry Cleaning Facility Attributes

OP-UA42 - Phosphate Fertilizer Manufacturing Attributes

OP-UA43 - Sulfuric Acid Production Attributes

OP-UA44 - Municipal Solid Waste Landfill/Waste Disposal Site Attributes

OP-UA45 - Surface Impoundment Attributes  
OP-UA46 - Epoxy Resins and Non-Nylon Polyamides Production Attributes  
OP-UA47 - Ship Building and Ship Repair Unit Attributes  
OP-UA48 - Air Oxidation Unit Process Attributes  
OP-UA49 - Vacuum-Producing System Attributes  
OP-UA50 - Fluid Catalytic Cracking Unit Catalyst Regenerator/Fuel Gas Combustion Device/Claus Sulfur Recovery Plant Attributes  
OP-UA51 - Dryer/Kiln/Oven Attributes  
OP-UA52 - Closed Vent Systems and Control Devices  
OP-UA53 - Beryllium Processing Attributes  
OP-UA54 - Mercury Chlor-Alkali Cell Attributes  
OP-UA55 - Transfer System Attributes  
OP-UA56 - Vinyl Chloride Process Attributes  
OP-UA57 - Cleaning/Depainting Operation Attributes  
OP-UA58 - Treatment Process Attributes  
OP-UA59 - Coke By-Product Recovery Plant Attributes  
OP-UA60 - Chemical Manufacturing Process Unit Attributes  
OP-UA61 - Pulp, Paper, or Paperboard Producing Process Attributes  
OP-UA62 - Glycol Dehydration Unit Attributes  
OP-UA63 - Vegetable Oil Production Attributes